



## Case Report

Copyright© Gun Mardiatmoko

# The Paradox of Progress in Handling Climate Change, War, And the Impact on Forest and Human Health

**Gun Mardiatmoko\***

*Study Program of Forest Management, Postgraduate Program of Pattimura University, Indonesia*

\*Corresponding author: Gun Mardiatmoko, Study Program of Forest Management, Postgraduate Program of Pattimura University, Ambon, Indonesia.

*To Cite This Article:* Gun Mardiatmoko\*. *The Paradox of Progress in Handling Climate Change, War, And the Impact on Forest and Human Health.* *Am J Biomed Sci & Res.* 2025 25(5) *AJBSR.MS.ID.003354*, DOI: 10.34297/AJBSR.2025.25.003354

**Received:** 📅 January 27, 2025; **Published:** 📅 January 30, 2025

## Climate Change and War Between Countries

The world body that addresses global climate change is the United Nations Framework Convention on Climate Change (UNFCCC). This body holds an annual meeting known as the Conference of the Parties (COP) which includes all stakeholders in handling climate change. COP 1 was held in Berlin, Germany in 1995 and the most recent was COP 29 held in Baku, Azerbaijan in 2024. Annual meetings often feature debates regarding the country expected to provide funds to address climate change. Recently, the UNFCCC conference concluded on 24 November 2024 with a pledge from developing nations to mobilize a minimum of \$ 3,000 billion annually [1]. This shows a struggle of nearly three decades by developing countries to demand financial support for handling climate change as a realization of Climate Justice.

Current climate situations in the world appear to have the Paradox of Progress or Change, which arises when actions intended to solve a problem can inadvertently contribute to the problem. The paradox includes a tension between mitigation and adaptation efforts versus activities, such as war or industrial operations, that worsen the problem faced because war negatively impacts the environment. The land and water have been polluted by toxic chemicals for decades after the completion of the war period. Additionally, the forest with various biodiversity is damaged and human health is threatened. The carbon emissions from armed conflict and the long-term impact on climate are less obvious consequences. There is a need to observe the persistent war between Russia and Ukraine, Israel and Palestine, as well as the rest of the Middle East. The number of military weapons that have been fired from the air or on land by countries at war is unimaginable. Some military emissions increase drastically during combat, with the biggest sources

of emissions being jet fuel for airplanes as well as diesel for tanks and naval ships.

Other situations contributing to the paradox are the production of weapons and ammunition, troop placement, housing issues, and many more. Moreover, bombs dropped during war, including explosions that cause fires, smoke, and debris from infrastructure and settlements, will lead to a very large “carbon footprint of war”. The carbon footprint in the first year of the Ukrainian war was around 120 million tons of CO<sub>2</sub> e. Ammunition and explosives could produce around 2 million tons of CO<sub>2</sub> e in that period. This is equivalent to approximately 1 billion beef steaks (150g), or 13 billion km traveled [2].

Two contradictory discussions are considered, where the UNFCCC is trying hard to carry out constructive development to Control Greenhouse Gas (GHG) emissions. Meanwhile, the warring countries are performing destructive actions by producing GHG emissions during the application of military equipment to achieve victory. This implies efforts are made to ensure the air temperature of the earth does not increase by less than 2°C, but there is a lack of concern because war will increase the air temperature on the battlefield and the surroundings. The paradox in the discussions is that efforts to reduce emissions, such as green energy transition, green building, reforestation, and many more, can be undermined by violent conflict capable of frequently intensifying emissions and disrupting long-term mitigation strategies.

## The Impact of Climate Change Which Causes Large Material and Immaterial Losses

Climate change is often experienced globally; therefore, every



country has the responsibility and enthusiasm for addressing the occurrence through mitigation and adaptation actions. Extreme natural disasters in a region may be encountered at any time in other locations, both at the national and international levels. Two cases of devastating natural disasters due to climate change that occurred at the beginning of the New Year 2025 are presented below.

### Case Of Flash Floods in Saudi Arabia

A rare event occurred in Saudi Arabia regarding heavy rain in several cities including the holy cities of Mecca and Medina as well as the surroundings, which caused flash floods on January 8, 2025. Saudi Arabia experienced unprecedented heavy rain that led to severe flooding. These types of natural disasters have occurred in the streets and neighborhoods of several cities across the kingdom, as the weather depression is expected to continue for days [3], leading to a disturbance for the Umrah congregation who will worship devoutly in the locations. Residents were found forming a human chain to help abandoned children, and no fatalities were reported but the flooding has put pressure on the underdeveloped sewage system. The National Meteorological Center has issued a red alert and closed public spaces. Teaching and learning activities in schools have shifted to online classes temporarily. Before the flood occurrence, there was a strange event of snowfall in the desert of Saudi Arabia. The Saudi Red Crescent Authority anticipated this natural disaster by immediately increasing the operational readiness to subdue potential health risks arising from flooding [4].

### Fire Cases In Los Angeles, California, USA

A large fire occurred in Eaton and Pacific Palisades, Los Angeles, California on January 7, 2025. This is not a holy city but has earned the nickname of a godless city, and the wildfires in the region are now the second most destructive in Southern California history. According to an analysis by the University of California (UCLA), the recent wildfires are bigger and hotter than the type occurring in the world without fossil fuel pollution which can cause global warming [5]. The natural disaster was triggered by extreme drought, strong gusts of wind (Santa Ana winds), and a fire tornado caused by climate change. Fires on dry grass spread to forest and residential areas consisting of luxury homes, most of which are owned by Hollywood celebrities.

Supposing filmmakers from the entertainment world learn how to act about sadness, disappointment, and despair, then all the fire victims could have currently felt the real impact of the luxury homes destroyed. There was a connection between the fire outbreak and a case of insulting as well as joking at God by the host Nikki Glasser at the opening monologue event of the 82<sup>nd</sup> Annual Golden Globes held 2 days before the incident. This natural disaster will not end quickly and will spread if the dry and strong Santa Ana winds continue to create frightening plumes of smoke and large flames.

The increase in the size and severity of forest fires in California is not an isolated event. Forest fires are occurring more frequently

and intensely around the world due to climate change. Hot and dry weather conditions caused by climate change are leading to longer and more severe fire seasons, making larger areas more vulnerable [6]. Meanwhile, forests near luxury settlements are very essential because the function is to support life, such as for recreation, provision of oxygen and clean water, and beautiful landscapes with the availability of flora and fauna with limited biodiversity. The impression of residents being in synergy with the surrounding environment is very good, implying "back to nature", specifically for the continuity of quality health among the population. However, the impact of climate change is great enough for fires to reach more than 16,000 hectares with estimated losses of approximately US\$ 150 billion. The terrible impact of climate change will continue when humans do not care about providing a management strategy. Even though some people live far from the two places where natural disasters occurred, others tend to have the experience in due course because climate change will increasingly spread to all countries in the world.

### Conclusion

In conclusion, this study detects that the impact of climate change is real. The affected locations potentially attributed the origin of the disasters to a holy or godless city flooded despite being commonly susceptible to drought. The locations may have frequent cases of rain and a sudden experience of drought. Efforts by various parties to suppress global warming through mitigation and adaptation are not significantly effective because of wars between countries that arbitrarily produce GHG from the machines used. Therefore, the paradox of progress appears to aptly describe the existing situations.

### Acknowledgments

None.

### Conflicts of Interest

None.

### References

1. Tumi, Lucia Vasques (2024) COP29 UN Climate Conference Agrees to Triple Finance to Developing Countries, Protecting Lives and Livelihoods. UN Climate Change pp.1-7.
2. Neimark, Benjamin (2023) How to Assess the Carbon Footprint of a War. The Conversation pp.1-4.
3. Asmar, Ahmed (2025) Several Cities in Saudi Arabia Hit by Unprecedented Torrential Rains, Severe Floods. AA pp.1-2.
4. Hossain, Shahadat (2025) After Snow, Saudi Arabia's Weather Takes Another Turn: Desert Land Hit by Thunderstorms, Floods, with Temperatures at 9 Degrees. The Economic Times News pp.1-2.
5. Yeung, Jessie, et al. (2025) Wildfires News Los Angeles Wildfires: As Winds Ease, Officials Warn Residents 'Not out of the Woods Yet. CNN pp.1-3.
6. MacCarthy, James, Jessica Richter (2025) 4 Graphics Explain Los Angeles' Rare and Devastating January Fires. WRI pp.1-5.